Claims:

For the convenience of the Examiner, all pending claims of the present Application are shown below.

1.   (Currently Amended) Apparatus for hierarchical software distribution allowing distribution of a software package comprising at least a first~~and~~, second, and third package to a plurality of target nodes, wherein the contents of said first~~and~~, second, and third package are determined by a distribution server before the contents are distributed, said apparatus comprising:

a distribution node for transmitting packages of software;

a first branch node in communication with said distribution node, said first branch node being arranged to receive at least a portion of said software package from said distribution node;

first and second target nodes, said first target node being in communication with said first branch node via a first network link, and said second target node being in communication with said first branch node via a second network link;

said first branch node being arranged to transmit said software package over said first network link, ~~and said second package~~to automatically repackage said second and third software packages into a fourth package, and to transmit the fourth package over only said second network link, and each of said first and ~~second~~fourth packages including a transfer control file allowing ascertainment of a shortest route to said target nodes;

such that [both] the first~~and~~, second, and third packages are distributed to both said first and second target nodes via said ascertained shortest route.

2.   (Original)   Apparatus according to Claim 1 wherein said software package is sent as a contiguous package over said first network link.

3.   (Original)   Apparatus according to Claim 1 wherein said first branch node is provided with information regarding which packages should be forwarded to which target nodes.

4. (Original) Apparatus according to Claim 1 wherein said first branch node is in communication with said first target node via a second branch node, said second branch node being in communication with said first branch node via said first network link, and said second branch node being in communication with said first target node via a third network link; said second branch node being further in communication with a third target node via a fourth network link.

5. (Currently Amended) Apparatus for hierarchical software distribution allowing distribution of a software package comprising at least a first and, second, and third package to a plurality of target nodes, said apparatus comprising:

a distribution node for transmitting packages of software;

a first branch node in communication with said distribution node, said first branch node being arranged to receive said software package from said distribution node;

first and second target nodes, said first target node being in communication with said first branch node via a first network link, and said second target node being in communication with said first branch node via a second network link; said first package already being present on said second target node;

said first branch node being arranged to transmit said software package over said first network link, and said second package to automatically repackage said second and third software packages into a fourth package, and to transmit the fourth package over only said second network link;

such that said first branch node is in communication with said first target node via a second branch node, said second branch node being; in communication with said first branch node via said first network link, and said second branch node being; in communication with said first target node via a third network link; said second branch node being further in communication with a third target node via a fourth network link;

such that each of said branch nodes is provided with information regarding target nodes to which each branch node is responsible for sending said packages and which of said first and, second, and third packages are required by said nodes; and such that each branch node forwards the information to subsequent nodes along each branch, editing said information for each branch to include only target nodes reached via that branch.

6. (Previously Presented) Apparatus according to Claim 4 wherein each of said branch nodes is provided with information regarding the target nodes which require each of said first and second packages, and is further provided with information regarding which of said target nodes said branch node is responsible for forwarding information to said distribution node and which immediate branches the branch node uses to reach each of said target nodes for which it is responsible; whereby each branch node can ascertain which packages should be forwarded along each immediate branch.

7. (Currently Amended) Apparatus according to Claim 1 wherein said first package comprises at least two sub-packages and wherein installation of said two ~~subpackages~~sub-packages on each of said target nodes must be performed in a specified order; wherein

installation of one of said sub-packages has already occurred on said first target node; and wherein

both of said ~~subpackages~~sub-packages are distributed to said first target node and neither of the ~~subpackages~~sub-packages are sent to said second target node.

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8.   (Currently Amended) Apparatus for hierarchical software distribution allowing distribution of a software package comprising at least a first~~and~~, second, and third package to a plurality of target nodes, wherein the contents of said first~~and~~, second, and third package are determined by a distribution server before the contents are distributed, said apparatus comprising:

a distribution node for transmitting packages of software;

at least one branch node in communication with said distribution node; and

first and second target nodes, said first target node being in communication with said branch node via a first network link, and said second target node being in communication with said branch node via a second network link;

each branch node being arranged to receive each of said first[and], second, and third packages from said distribution node independently, and each of said first~~and~~, second, and third packages including a transfer control file allowing ascertainment of a shortest route to said target nodes;

said branch node being arranged to transmit said ~~first~~software package via said first~~and~~ ~~second~~ network ~~links~~link to said first~~and second~~ target ~~nodes~~node via said ascertained shortest route, and ~~said second package~~ to automatically repackage said second and third software packages into a fourth package and transmit the fourth package via said second network link to said second target node via said ascertained shortest route using the transfer control file associated with the second package; and

said target nodes being arranged to install each package once the package is received;

such that the complete software package is installed on each of said first and second target nodes.

9. (Currently Amended) A method of distributing a software package to at least a first and second target node over at least one common network link, said software package comprising at least a first package, ~~and~~a second package, and a third package, wherein the contents of said second and third packages ~~package~~ are determined by a distribution server and included in a transfer control file allowing ascertainment of a shortest route before the contents are distributed, said first software package already being present on said second node, said method comprising:

automatically repackaging said second and third packages into a fourth package; and

sending said software package over said common network link; thereafter sending only said ~~second~~fourth package to said second target node; and sending said software package to said first target node;

such that ~~both~~ the first ~~and~~, second, and third packages are distributed to both said first and second target nodes via said ascertained shortest route.